

**IN THE CLAIMS**

~~Please~~ Please cancel non-elected claims 188-190 and 192 without prejudice.

**REMARKS**

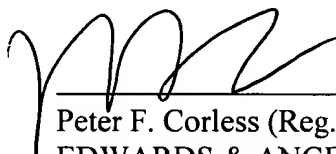
Applicants appreciate the notification that claims 141-186, 193 and 195-208 are allowed.

Non-elected claims 188-190 and 192 have been cancelled without prejudice. Those claims are being pursued in a continuing application.

In accordance with the Examiner's request as related to the undersigned, Applicants provide herewith a Sequence Listing Submission.

Accordingly, now that matters of form have been attended to, it is believed that issuance of a Notice of Allowance for the application is proper.

Respectfully submitted,



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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**IN THE SPECIFICATION**

The sentence at page 79, that start at line 26 and ends at line 30 has been amended as follows:

LNA oligomers (formula Z of Figure 2) AL16 (5'-d(**TGTGTGAAATTGTTAT**)-3' (SEQ ID NO: 1); LNA nucleotides in bold) and AL17 (5'-d(**ATAAAGTGTAAG**)-3' (SEQ ID NO: 2); LNA nucleotides in bold) were successfully labeled with fluorescein using the FluoroAmp T4 Kinase Green Oligonucleotide Labeling System as described by the manufacturer (Promega).

The sentence at page 86, that start at line 12 and end at line 17 has been amended as follows:

20 pmoles of each primer (FP2: 5' - GGTGGTTTGTGTTG-3' (SEQ ID NO: 3); DNA probe), (AL2: 5'-GGTGGTTTGTGTTG-3' (SEQ ID NO: 4), LNA nucleosides in bold) and (AL3: 5'-**GGTGGTTTGTGTTG**-3' (SEQ ID NO: 5), LNA nucleosides in bold) was mixed with T4 polynucleotide Kinase (5 Units; New England Biolabs) and 6  $\mu$ l  $\gamma$ -<sup>32</sup>P ATP (3000 Ci/mmol, Amersham) in a buffer containing 70 mM Tris-HCl (pH 7.6), 10 mM MgCl<sub>2</sub>, 5 mM dithiotretiol (final volume 20  $\mu$ l).

The sentence at page 87, that starts at line 12 and ends at line 17, has been amended as follows:

The sequence and extent of LNA modification were as follows (where LNA monomers are in bold):

- |         |   |
|---------|---|
| Control | 5' GGT GGT TTG TTT G 3' (SEQ ID NO: 6)        |
| (1)     | 5' GGT GGT <b>TTG</b> TTT G 3' (SEQ ID NO: 7) |
| (2)     | 5' GGT GGT <b>TTG</b> TTT G 3' (SEQ ID NO: 8) |
| (3)     | 5' <b>GGT GGT TTG TTT</b> G 3' (SEQ ID NO: 9) |

The sentence at page 87, that starts at line 32, and ends at page 88, line 4 has been amended as follow:

The following 15mer primers and a mixture of 8 to 32 base oligonucleotide markers were 5' end labelled with [ $\gamma$   $^{33}$ P] ATP and T4 polynucleotide kinase (where LNA monomers are in bold):

P1 5'-TGC ATG TGC TGG AGA-3' (SEQ ID NO:10)  
P2 5'- GC ATG TGC TGG AGA T-3' (SEQ ID NO:11)  
PZ1 5'-TGC ATG TGC TGG AGA-3' (SEQ ID NO:12)  
PZ2 5'- GC ATG TGC TGG AGA T-3' (SEQ ID NO:13)

The sentence at page 88, that starts at line 21, at ends at line 23, has been amended as follows:

A 15mer primer (sequence: 5'-TGC ATG TGC TGG AGA-3' (SEQ ID NO:14)) and a mixture of 8 to 32 base oligonucleotide markers were 5' end labelled with [ $\gamma$   $^{33}$ P] ATP and T4 polynucleotide kinase.

The sentence at page 89, that starts at line 14, and ends at line 20, has been amended as follows:

The sequences of the primer and templates are (LNA monomer in bold):

Primer 5' TGCATGTGCTGGAGA 3' (SEQ ID NO: 15)  
Template 1 3' **ACGTACACGACCTCT**ACCTTGCTA 5' (SEQ ID NO:16)  
Template 2 3' **ACGTACACGACCTCTCTT**GATCAG 5' (SEQ ID NO:17)  
Template 3 3' **ACGTACACGACCTCTTGGCT**AGTC 5' (SEQ ID NO:18)  
Template 4 3' **ACGTACACGACCTCTGAACT**AGTC 5' (SEQ ID NO:19)

The sentence at page 91, that starts at line 11, and ends at line 18, has been amended as follows:

The following 15mer primers and 8 to 32 base oligonucleotide markers were 5' end labelled with [ $\gamma$   $^{33}$ P] ATP and T4 polynucleotide kinase (LNA monomer in bold):

P2 5'- GC ATG TGC TGG AGA T-3' (SEQ ID NO:20)

PZ2 5'- GC ATG TGC TGG AGA T-3' (SEQ ID NO:21)

Reactions were boiled for 5 min after labelling to remove any PNK activity. 8 picomoles of each primer was hybridised to 25 pmoles Template (sequence: 3'- ACG TAC ACG ACC TCT ACC TTG CTA-5' (SEQ ID NO:22)) in x2 Klenow buffer.

The paragraph at page 92, that starts at line 8 and ends at line 16, has been amended as follows:

**PCR reaction mixture for Amplicon 1**

1  $\mu$ l pUC19 (1 ng/ $\mu$ l),  
1  $\mu$ l reverse primer (5' -AACAGCTATGACCATG-3') (SEQ ID NO:23) (20  $\mu$ M),  
1  $\mu$ l forward primer (5' - GTAAAACGACGGCCAGT-3') (SEQ ID NO:24) (20  $\mu$ M),  
10  $\mu$ l dUTP-mix (2 mM dATP, 2 mM dCTP, 2 mM dGTP and 6mM dUTP), 1.5  $\mu$ l DIG-11-dUTP (1 mM)  
10  $\mu$ l 10x Taq buffer (Boehringer Mannheim incl MgCl<sub>2</sub>)  
1  $\mu$ l Taq polymerase (Boehringer Mannheim) 5 U/ $\mu$ l  
H<sub>2</sub>O ad 100  $\mu$ l

The paragraph at page 92, at lines 18-26, has been amended as follows:

**PCR reaction mixture for Amplicon 2**

1  $\mu$ l pUC19 (1 ng/ $\mu$ l),  
0.4  $\mu$ l primer 3 (5'-GATAGGTGCCTCACTGAT-3') (SEQ ID NO:25) (50  $\mu$ M),  
0.4  $\mu$ l primer 4 (5'-GTCGTTTCGCTCCAAGCTG-3') (SEQ ID NO:26) (50  $\mu$ M),  
10  $\mu$ l dUTP-mix (2 mM dATP, 2 mM dCTP, 2 mM dGTP and 6mM dUTP),  
1.5  $\mu$ l DIG-11-dUTP (1 mM)  
10  $\mu$ l 10x Taq buffer (Boehringer Mannheim incl MgCl<sub>2</sub>)  
1  $\mu$ l Taq polymerase (Boehringer Mannheim) 5 U/ $\mu$ l  
H<sub>2</sub>O ad 100  $\mu$ l

The sentence at page 93, that starts at line 3, and ends at line 9, has been amended as follows:

The following capture probes were used: B-DNA1 (biotin-ATGCCTGCAGGTCGAC-3' SEQ ID NO:27); DNA probe specific for amplicon 1), B-DNA2 (biotin-GGTGGTTTGTGTTG-3' SEQ ID NO:28); DNA probe specific for amplicon 2) and B-LNA2 (biotin-**GGTGGTTTGTGTTG**-3' (SEQ ID NO:29), LNA nucleosides in bold; LNA probe specific for amplicon 2). Reactions were heated to 95°C for 5 min in order to denature amplicons and allowed to cool at 25°C for 15 min to facilitate hybridisation between the probe and the target amplicon strand.

The sentence at page 94, that starts at line 3 and ends at line 6, has been amended as follows:

Two identical sets of 10 µl reactions of amplicon 1 or 2 (prepared as in Example 143) were mixed with either 1, 5 or 25 pmol of the B-LNA2 capture probe (biotin-**GGTGGTTTGTGTTG**-3' (SEQ ID NO:30), LNA nucleosides in bold; probe specific for amplicon 2) in 1 x SSC (0.15 M NaCl, 15mM citrate, pH 7.0) in a total volume of 450 µl.

The sentence at page 95, that starts at line 6, and ends at line 11, has been amended as follows:

Wells of a streptavidin coated microtiter plate (Boehringer Mannheim) were incubated for 1 hour with either 5 pmol of the B-DNA2 probe (biotin-GGTGGTTTGTGTTG-3' SEQ ID NO:31); DNA probe specific for amplicon 2) or the B-LNA2 probe (biotin-**GGTGGTTTGTGTTG**-3' (SEQ ID NO:32), LNA nucleosides in bold; LNA probe specific for amplicon 2) in a total volume of 100 µl 1xSSC (0.15 M NaCl, 15mM citrate, pH 7.0).

The sentence at page 96, that starts at line 9, and ends at line 20, has been amended as follows:

Three DIG labelled amplicons from Nras sequence (ref.: Nucleic Acid Research, **1985**, Vol. 13, No. 14, p 52-55) were generated by PCR amplification as follows:

PCR primers:

Forward primer: 5'-CCAGCTCTCAGTAGTTTAGTACA-3' (SEQ ID NO:33) bases 701-723 according to the NAR reference.

910 by reverse primer: 5'-GTAGAGCTTTCTGGTATGACACA-3' (SEQ ID NO:34) bases 1612-1590 (reverse sequence according to NAR ref.).

600 by reverse primer: 5'-TAAGTCACAGACGTATCTCAGAC-3' (SEQ ID NO:35) bases 1331-1308 (reverse sequence according to NAR ref.).

200 by reverse primer: 5'-CTCTGTTTCAGACATGAACTGCT-3' (SEQ ID NO:36) bases 909-886 (reverse sequence according to NAR ref.).

The sentence at page 96, that starts at line 32, and ends at page 97, line 5, has been amended as follows:

**Assay conditions:** Wells of a streptavidin coated micro-titer plate (Boehringer Mannheim; binding capacity of 20 pmol biotin per well) were incubated for 1 hour in 5 x SSCT (0.75 M NaCl, 75 mM citrate, pH 7.0, 0.1 % Tween 20) at 37°C with either 1 pmol of DNA Nras Cap A (biotin-5'-TTCCACAGCACAA-3') (SEQ ID NO:37), LNA/DNA Nras Cap A (biotin-5'-TTCCACAGCACAA-3') (SEQ ID NO:38), LNA Nras Cap A (biotin-5'-TTCCACAGCACAA-3') (SEQ ID NO:39), DNA Nras Cap B (biotin-5'-AGAGCCGATAACA-3') (SEQ ID NO:40), LNA/DNA Nras Cap B (biotin-5'-AGAGCCGATAACA-3') (SEQ ID NO:41) or LNA Nras Cap B (biotin-5'-AGAGCCGATAACA-3') (SEQ ID NO:42); LNA nucleosides in bold.

The sentence at page 98, that starts at line 3, and ends at line 6 has been amended as follows:

The ability of an LNA modified oligo (5'-GGTGG**TTT**GTTTG-3') (SEQ ID NO:43), LNA nucleosides in bold) to serve as primer in template dependent, enzymatic elongation were investigated with 3 different classes of polymerases.

The sentences at page 98, that start at line 9, and end at line 13, have been amended as follows:

As control the extension reactions were conducted using the identical unmodified DNA primer (5'-GGTGGTTTGTGTTG-3') (SEQ ID NO:44). The LNA and DNA primers were labelled with  $^{32}\text{P}$ - $\gamma$ -ATP as previously described in Example 137. A 50mer DNA oligo (5'-AAAAATCGACGCTCAAGTCAGAAAAGCATCTCACAAACAAACAAACCACC-3') (SEQ ID NO:45) was used as template.

The sentences at page 99, that start at line 10, and end at line 19, have been amended as follows:

The ability of LNA modified oligos to act as primers in PCR amplification was analysed with three oligos differing only in the number of LNA nucleosides they contained: 4 LNA nucleosides (AL2 primer: 5'-GGTGGTTTGTGTTG-3' (SEQ ID NO:46), LNA nucleosides in bold), 1 LNA nucleoside (AL10 primer: 5'-GGTGGTTTGTGTTG-3' (SEQ ID NO:47), LNA nucleoside in bold) and no LNA nucleoside (FP2 primer: 5'-GGTGGTTTGTGTTG-3') (SEQ ID NO:48). The PCR reactions (100  $\mu\text{l}$ ) contained either no template (control), 0.01 ng, 0.1 ng or 1 ng of template (pUC19 plasmid), 0.2  $\mu\text{M}$  reverse primer (5'-GTGGTTCGCTCCAAGCTG-3') (SEQ ID NO:49), 0.2  $\mu\text{M}$  of either the AL2, AL10 or FP2 forward primer, 200  $\mu\text{M}$  of dATP, dGTP, dCTP and dTTP, 10 mM Tris-HCl pH 8.3, 1.5 mM  $\text{MgCl}_2$ , 50 mM KCl and 2.5U of the BM-Taq polymerase.

The sentence at page 100, that starts at line 26, and ends at line 29, has been amended as follows:

Either 25 pmol/ $\mu\text{l}$  or 12.5 pmol/ $\mu\text{l}$  of an anthraquinone DNA oligo (5'-AQ-CAG CAG TCG ACA GAG-3') (SEQ ID NO:50) or an anthraquinone LNA modified DNA oligo (5'-AQ-CAG CAG TCG ACA GAG-3' (SEQ ID NO:51); LNA monomer is underlined) was spotted (1  $\mu\text{l}$ /spot) in 0.2 M LiCl on a polycarbonate slide (Nunc). The oligos were irradiated for 15 min with soft UV light.

The sentence at page 100, that starts at line 30, and ends at line 34, have been amended as follows:

After irradiation the slide was washed three times in Milli-Q water and air-dried. 25 ml of 0.5 pmol/ $\mu$ l of complimentary biotinylated oligomer (5'-biotin- CTC TGT CGA CTG CTG-3') (SEQ ID NO:52) was hybridised to the immobilised oligomers in 5 x SSCT (75 mM Citrate, 0.75 M NaCl, pH 7.0, 0.1 % Tween 20) at 50°C for 2 hours.

The sentence at page 107, that starts at line 23, and ends at line 27 has been amended as follows:

The 15mer primer (sequence: 5'-TGC ATG TGC TGG AGA-3') (SEQ ID NO:53) was used to prime the following short oligonucleotide sequences (LNA monomer in bold):

Template 1 3'-ACG TAC ACG ACC TCT ACC TTG CTA-5' (SEQ ID NO:54)

Template TZ1 3'-ACG TAC ACG ACC TCT ACC TTG CTA-5' (SEQ ID NO:55)

The sentence at page 109, that starts at line 9, and ends at line 15 has been amended as follows:

10 pmol of a oligodeoxynucleotide (ODN) (ODN#10: 5'-TTA ACG TAG GTG CTG GAC TTG TCG CTG TTG TAC TT-3' (SEQ ID NO:56), a 35-mer complementary to human Cathepsin D ) and 10 pmoles of two LNA oligos: AL16 (5'-d(TGT GTG AAA TTG TTA T)-3' (SEQ ID NO:57), LNA nucleosides in bold) and AL17 (5'-d(ATA AAG TGT AAA G)-3' (SEQ ID NO:58), LNA nucleosides in bold) were mixed with T4 polynucleotide Kinase (10 units, BRL cat. no. 510-8004SA), 5  $\mu$ l gamma  $^{32}$ P-ATP 5000 Ci/mmol, 10 uCi/ $\mu$ l (Amersham) in kinase buffer (50 mM Tris/HCl pH 7,6, 10 mM MgCl<sub>2</sub>, 5 mM DTT, 0.1 mM EDTA).



The Table at page 111, that is entitled "Oligonucleotides tested" has been amended as follows:

Table: Oligonucleotides tested

Name	Sequence (LNA monomers in bold)	Characteristics
AL16	5'- <b>TGT GTG AAA TTG TTA</b> T-3' (SEQ ID NO: 59)	LNA, enzym. FITC labeled
AL17	5'- <b>ATA AAG TGT A AA</b> G-3' (SEQ ID NO:60)	LNA, enzym. FITC labeled
EQ3009-01	5'- <b>TGC CTG CAG GTC GAC</b> T-3' (SEQ ID NO:61)	LNA-FITC-labeled
EQ3008-01	5'-TGC CTG CAG GTC GAC T-3' (SEQ ID NO:62)	DNA-FITC-labeled

The sentence at page 112, that starts at line 34, and ends at page 113, line 3, has been amended as follows:

Two LNA oligos: AL16 (5'-**TGT GTG AAA TTG TTA** T-3' SEQ ID NO: 63), LNA nucleosides in bold) and AL17 (5'-**ATA AAG TGT AAA** G-3' SEQ ID NO:64), LNA nucleosides in bold) were labeled with fluorescein as described in Example 128. MCF-7 human breast cancer cells were cultured as described in-Example 154.

The sentence at page 115, that starts at line 18, and ends at line 24, has been amended as follows:

The following poly dT primers were tested (LNA monomers are in bold):

RTZ1 5'-TTT TTT **TTT** TTT TT-3' (SEQ ID NO:65)

RTZ2 5'-TTT TTT **TTT** TTT TT-3' (SEQ ID NO:66)

RTZ3 5'-TTT TTT **TTT** TTT TT-3' (SEQ ID NO:67)

RTZ4 5'-TTT TTT **TTT** TTT TT-3' (SEQ ID NO:68)

RTZ5 5'-**TTT TTT TTT** T-3' (SEQ ID NO:69)

The sentence at page 116, that starts at line 24, and ends at line 28, has been amended as follows:

Three oligos were synthesised by chemistry (Amy Mueller) for evaluation in poly (rA) binding.

- NH<sub>2</sub>(T8)-T Control
- NH<sub>2</sub>(T15)-T Control SEQ ID NO:70
- NH<sub>2</sub>(LNA-T8)-T Test

Table 1 (cont.) (3), has been amended as follows:

**Table 1 (cont.)**

Oligo	Target	T <sub>m</sub> No.	T <sub>m</sub> (°C) Na <sub>2</sub> HPO <sub>4</sub> /EDTA	T <sub>m</sub> (°C) Na <sub>2</sub> HPO <sub>4</sub> /NaCl/EDTA	T <sub>m</sub> (°C) Na <sub>2</sub> HPO <sub>4</sub> /TMAC
<b>5'-d(GGTGGTTGTTG)-3' (SEQ ID NO:71)</b>					
5'-d(CAAACAAACACACA)-3' (SEQ ID NO:72)		39	31	47	55
5'-(CAAACAAACACACA)-3' (SEQ ID NO:73)		39A	32	52	
<b>5'-d(GGTGGTTGTTG)-3' (SEQ ID NO:74)</b>					
5'-d(CAAACAAACACACA)-3' (SEQ ID NO:75)		40	40	57	67
5'-(CAAACAAACACACA)-3' (SEQ ID NO:76)		40A	50	70	
<b>d(GGTGGTTGTTG)-3' (SEQ ID NO:77)</b>					
5'-d(CAAACAAACACACA)-3' (SEQ ID NO:78)		41	67	83	>90
5'-(CAAACAAACACACA)-3' (SEQ ID NO:79)		41A	85	>93	
<b>5'-d(TTTT TTT TTT TTT)-3' (SEQ ID NO:80)</b>					
5'-d(AAAAAAAAAAAAAAAAAA)-3' (SEQ ID		42		36	

Oligo	Target	T <sub>m</sub> No.	T <sub>m</sub> (°C) Na <sub>2</sub> HPO <sub>4</sub> /EDTA	T <sub>m</sub> (°C) Na <sub>2</sub> HPO <sub>4</sub> /NaCl/EDTA	T <sub>m</sub> (°C) Na <sub>2</sub> HPO <sub>4</sub> /TMAC
NO:81)					
5'-(AAAAAAAAAAAAAAAAAA)-3' (SEQ ID NO:82)		43	32		
5'-d(TTTT TTT TTT TTT)-3' (SEQ ID NO:83)					
5'-d(AAAAAAAAAAAAAAAAAA)-3' (SEQ ID NO:84)		44	36		
5'-(AAAAAAAAAAAAAAAAAA)-3' (SEQ ID NO:85)		45	32		
5'-d(TTTT TTT TTT TTT)-3' (SEQ ID NO:86)					
5'-d(AAAAAAAAAAAAAAAAAA)-3' (SEQ ID NO:87)		46	34		
5'-(AAAAAAAAAAAAAAAAAA)-3' (SEQ ID NO:88)		47	40		
5'-d(TTTT TTT TTT TTT)-3' (SEQ ID NO:89)					
5'-d(AAAAAAAAAAAAAAAAAA)-3' (SEQ ID NO:90)		48	42		

Oligo	Target	T <sub>m</sub> No.	T <sub>m</sub> (°C) Na <sub>2</sub> HPO <sub>4</sub> /EDTA	T <sub>m</sub> (°C) Na <sub>2</sub> HPO <sub>4</sub> /NaCl/EDTA	T <sub>m</sub> (°C) Na <sub>2</sub> HPO <sub>4</sub> /TMAC
5'-(AAAAAAAAAAAAAAAAA)-3' (SEQ ID NO:91)		49	52		
5'-d(TTTT TTT TTT TTT TTT)-3' (SEQ ID NO:92)					
5'-d(AAAAAAAAAAAAAAAAAA)-3' (SEQ ID NO:93)		50	47		
5'-(AAAAAAAAAAAAAAAAA)-3' (SEQ ID NO:94)		51	53		
5'-d(TTTT TTT TTT TTT TTT)-3' (SEQ ID NO:95)					
5'-d(AAAAAAAAAAAAAAAAAA)-3' (SEQ ID NO:96)		52	80		
5'-(AAAAAAAAAAAAAAAAA)-3' (SEQ ID NO:97)		53	70		
5'-d(AAAACCAAAA)-3'		54	63		
5'-d(AAAGAAAAA)-3'		55	55		
5'-d(AAAATAAAAA)-3'		56	65		
5'-d(GTGAAATGC)-3'					

Oligo	Target	T <sub>m</sub> No.	T <sub>m</sub> (°C) Na <sub>2</sub> HPO <sub>4</sub> /EDTA	T <sub>m</sub> (°C) Na <sub>2</sub> HPO <sub>4</sub> /NaCl/EDTA	T <sub>m</sub> (°C) Na <sub>2</sub> HPO <sub>4</sub> /TMAC
5'-d(GCATATCAG)-3'		57	26		
5'-d(GCATTTCAC)-3'		58	45		
5'-d(GCATGTCAC)-3'		59	23		
5'-d(GCATCTCAC)-3'		60	25		
5'-d(GTGA <sup>Me</sup> CATGC)-3'					
5'-d(GCATATCAG)-3'		61	<15		
5'-d(GTGA <sup>Me</sup> CATGC)-3'					
5'-d(GCATATCAG)-3'		63	32		
5'-d(GCATTTCAC)-3'		64	27		
5'-d(GCATGTCAC)-3'		65	53		
5'-d(GCATCTCAC)-3'		66	32		

Table 2 (Monomer V) (6), has been amended as follows:

Table 2					
Monomer V					
Oligo	Target	T <sub>m</sub> No.	T <sub>m</sub> (°C) Na <sub>2</sub> HPO <sub>4</sub> /EDTA	T <sub>m</sub> (°C) Na <sub>2</sub> HPO <sub>4</sub> /NaCl/EDTA	T <sub>m</sub> (°C) Na <sub>2</sub> HPO <sub>4</sub> /TMAC
5'-d(TTTT TTT TTT TTT)-3' (SEQ ID NO:98)					
5'-d(AAAAA AAAAA AAAAA A)-3' (SEQ ID NO:99)			32		
5'-(AAAA AAAAA AAAAA A)-3' (SEQ ID NO:100)			27		
5'-d(TTTT TTT TTT TTT)-3' (SEQ ID NO:101)					
5'-d(AAAAA AAAAA AAAAA A)-3' (SEQ ID NO:102)			31		
5'-(AAAA AAAAA AAAAA A)-3' (SEQ ID NO:103)			28		
5'-d(TTTT TTT TTT TTT)-3' (SEQ ID NO:104)					
5'-d(AAAAA AAAAA AAAAA A)-3' (SEQ ID NO:105)			30		
5'-(AAAA AAAAA AAAAA A)-3' (SEQ ID NO:106)			23		
5'-d(TTTT TTT TTT TTT)-3' (SEQ ID NO:107)					
5'-d(AAAAA AAAAA AAAAA A)-3' (SEQ ID NO:108)			23		

Oligo	Target	T <sub>m</sub> No.	T <sub>m</sub> (°C) Na <sub>2</sub> HPO <sub>4</sub> /EDTA	T <sub>m</sub> (°C) Na <sub>2</sub> HPO <sub>4</sub> /NaCl/EDTA	T <sub>m</sub> (°C) Na <sub>2</sub> HPO <sub>4</sub> /TMAC
NO:108)					
5'-(AAAAAAAAAAAAAAAA)-3' (SEQ ID NO:109)			31		
5'-d(TTTT'TTTT'TTTT)-3' (SEQ ID NO:110)					
5'-d(AAAAAAAAAAAAAAAAAA)-3' (SEQ ID NO:111)			23		
5'-(AAAAAAAAAAAAAAAA)-3' (SEQ ID NO:112)			16		
5'-d(TTTT'TTTT'TTTT)-3' (SEQ ID NO:113)					
5'-d(AAAAAAAAAAAAAAAAAA)-3' (SEQ ID NO:114)			<10		
5'-(AAAAAAAAAAAAAAAA)-3' (SEQ ID NO:115)			42		
5'-(AAAAAAAAGAAAAAAAAA)-3' (SEQ ID NO:116)			37		
5'-d(GTGATATGC)-3'					
5'-d(GCATATCAC)-3'			26		
5'-(GCAUAUCAC)-3'			27		



Table 3 (Monomer X) (7), has been amended as follows:

Monomer X	Oligo	Target	T <sub>m</sub> No.	T <sub>m</sub> (°C)		
				Na <sub>2</sub> HPO <sub>4</sub> /EDTA	Na <sub>2</sub> HPO <sub>4</sub> /NaCl/EDTA	Na <sub>2</sub> HPO <sub>4</sub> /TMAC
	5'-d(TTTT TTT TTT TTT)-3' (SEQ ID NO:117)					
	5'-d(AAAAAAAAAAAAAAAAAA)-3' (SEQ ID NO:118)		23			
	5'-(AAAAAAAAAAAAAAAAAA)-3' (SEQ ID NO:119)		23			
	5'-d(TTTT TTT TTT TTT)-3' (SEQ ID NO:120)					
	5'-d(AAAAAAAAAAAAAAAAAA)-3' (SEQ ID NO:121)		19			
	5'-(AAAAAAAAAAAAAAAAAA)-3' (SEQ ID NO:122)		23			
	5'-d(TTTT TTT TTT TTT)-3' (SEQ ID NO:123)					
	5'-d(AAAAAAAAAAAAAAAAAA)-3' (SEQ ID NO:124)		9			
	5'-(AAAAAAAAAAAAAAAAAA)-3' (SEQ ID NO:125)		15			
	5'-d(TTTT TTT TTT TTT)-3' (SEQ ID NO:126)					

Oligo	Target	T <sub>m</sub> No.	T <sub>m</sub> (°C)	T <sub>m</sub> (°C)	T <sub>m</sub> (°C)
			Na <sub>2</sub> HPO <sub>4</sub> /EDTA	Na <sub>2</sub> HPO <sub>4</sub> /NaCl/EDTA	Na <sub>2</sub> HPO <sub>4</sub> /TMAC
5'-d(AAAAAAAAAAAAAAAAAA)-3' (SEQ ID NO:127)				5	
5'-(AAAAAAAAAAAAAAAAAA)-3' (SEQ ID NO:128)				14	

Table 4 (Monomer Y) (8), as amended as follows:

Monomer Y	Oligo	Target	T <sub>m</sub> No.	T <sub>m</sub> (°C)		
				Na <sub>2</sub> HPO <sub>4</sub> /EDTA	Na <sub>2</sub> HPO <sub>4</sub> /NaCl/EDTA	Na <sub>2</sub> HPO <sub>4</sub> /TMAC
5'-d(TTTT	TTTTTTT)-3' (SEQ ID NO:129)					
	5'-d(AAAAAAAAAAAAAAA)-3' (SEQ ID NO:130)		36			
	5'-(AAAAAAAAAAAAAAA)-3' (SEQ ID NO:131)		37			
5'-d(TTTT	TTTTTTT)-3' (SEQ ID NO:132)					
	5'-d(AAAAAAAAAAAAAAA)-3' (SEQ ID NO:133)		35			
	5'-(AAAAAAAAAAAAAAA)-3' (SEQ ID NO:134)		37			
5'-d(TTTT	TTTTTTT)-3' (SEQ ID NO:135)					
	5'-d(AAAAAAAAAAAAAAA)-3' (SEQ ID NO:136)		35			
	5'-(AAAAAAAAAAAAAAA)-3' (SEQ ID NO:137)		36			

Oligo	Target	T <sub>m</sub> No.	T <sub>m</sub> (°C) Na <sub>2</sub> HPO <sub>4</sub> /EDTA	T <sub>m</sub> (°C) Na <sub>2</sub> HPO <sub>4</sub> /NaCl/EDTA	T <sub>m</sub> (°C) Na <sub>2</sub> HPO <sub>4</sub> /TMAC
5'-d(TTTT TTT TTT TTT)-3' (SEQ ID NO:138)					
5'-d(AAAAAAAAAAAAAAAAAA)-3' (SEQ ID NO:139)			32		
5'-(AAAAAAAAAAAAAAAAAA)-3' (SEQ ID NO:140)			33		
5'-d(TTTT TTT TTT TTT)-3' (SEQ ID NO:141)					
5'-d(AAAAAAAAAAAAAAAAAA)-3' (SEQ ID NO:142)			36		
5'-(AAAAAAAAAAAAAAAAAA)-3' (SEQ ID NO:143)			36		
5'-d(TTTT TTT TTT TTT)-3' (SEQ ID NO:144)					
5'-d(AAAAAAAAAAAAAAAAAA)-3' (SEQ ID NO:145)			58		
5'-(AAAAAAAAAAAAAAAAAA)-3' (SEQ ID NO:146)			58		